

In re Application of:  
Gage and Ray  
Application No.: 10/622,206  
Filed: July 18, 2003  
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Attorney Docket No.: REGEN1160-6

**Amendments to the Claims**

Please cancel claim 52.

Please add new claims claim 53-.

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-52 (Cancelled)

Claim 53. (New) A composition comprising:

a population of isolated neural cells comprising a neuroblast and a nestin-positive neural cell, wherein the isolated neural cells are derived from the CNS of an adult mammal, and

a culture medium comprising an amount of at least one trophic factor sufficient to allow the neuroblast to proliferate for at least seven days.

Claim 54. (New) The composition of claim 53, wherein the doubling time of the population of isolated neural cells is less than 10 days.

Claim 55. (New) The composition of claim 53, wherein the population of isolated neural cells is capable of giving rise to glial cells and neurons.

Claim 56. (New) The composition of claim 53, wherein the isolated neural cells are not genetically modified.

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Claim 57. (New) The composition of claim 53, wherein the at least one trophic factor comprises LIF.

Claim 58. (New) The composition of claim 57, wherein the at least one trophic factor further comprises bFGF.

Claim 59. (New) The composition of claim 53, wherein the nestin positive neural cell is an undifferentiated cell capable of giving rise to glial cells and neurons.

Claim 60. (New) The composition of claim 53, wherein the isolated neural cells are derived from the adult mammalian hippocampus.

Claim 61. (New) The composition of claim 60, wherein the isolated neural cells are derived from the dentate gyrus region of the adult mammalian hippocampus.

Claim 62. (New) The composition of claim 53, wherein a majority of the neural cells comprising the population of isolated neural cells are of neuronal lineage.

Claim 63. (New) The composition of claim 53, wherein a majority of the neural cells comprising the population of isolated neural cells are neurons.

Claim 64. (New) The composition of claim 53, wherein the adult mammal is a human.

Claim 65. (New) The composition of claim 53, further comprising at least one pharmaceutically acceptable excipient suitable for transplantation into the CNS of a human subject.

Claim 66. (New) A method of treating a subject with a neuronal cell disorder comprising administering to the subject a therapeutically effective amount of a composition comprising a population of isolated neural cells derived from the CNS of an adult human, wherein the population comprises a neuroblast and a nestin-positive neural cell.

Claim 67. (New) The method of claim 66, wherein the neuronal cell disorder is selected from the group consisting of Alzheimer's disease, Parkinson's disease, Huntington's disease, and stroke.

Claim 68. (New) The method of claim 66, wherein the population of isolated neural cells is capable of giving rise to glial cells and neurons.

Claim 69. (New) The method of claim 66, wherein the administering comprises grafting the isolated neural cells into the CNS of the subject.

Claim 70. (New) The method of claim 66, wherein the composition further comprises at least one pharmaceutically acceptable excipient suitable for transplantation into the CNS of a human subject.

Claim 71. (New) The method of claim 66, wherein the nestin positive neural cell is an undifferentiated cell capable of giving rise to glial cells and neurons.

Claim 72. (New) The method of claim 66, wherein the isolated neural cells are derived from the adult mammalian hippocampus.

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Claim 73. (New) The method of claim 66, wherein the isolated neural cells are derived from the dentate gyrus region of the adult mammalian hippocampus.

Claim 74. (New) The method of claim 66, wherein a majority of the neural cells comprising the population of isolated neural cells are of neuronal lineage.

Claim 75. (New) The method of claim 66, wherein a majority of the neural cells comprising the population of isolated neural cells are neurons.